

(Dr. Joanne Cono, CDC)

Botulinum toxin is the most lethal substance known to man, so its potential as a weapon was appreciated early on. Supporters of Poncho Villa may have used botulinum against Mexican federalis in 1910. While the details are unclear, it's been said that they left behind recipes where they actually buried pork and green beans for several days. They then dug up this horrible concoction and used it to contaminate food, and they also smeared it on sharp instruments that they used as weapons. During the second World War, intelligence reports indicated that the Germans were developing botulinum toxin as a cross English Channel weapon to be used against invasive forces. In light of this, it's ironic that a hand grenade filled with botulinum toxins may have been used by Chech patriots who were trained and equipped by the British to assassinate Reinhard Heydrich, head of the Nazi Gestapo in 1942. Inconclusive reports suggested that he died from the effects of the toxin rather than from injuries sustained from the shrapnel.

The United States' interest in botulinum toxins may have grown in part out of our suspicions about the alleged German program. The Soviets studied botulinum as well. While the U.S. actually developed botulinum as one of the lethal agents in its arsenal, both the United States and the Soviets ultimately gave botulinum a lower level of priority because it's usefulness for dissemination over large areas was inferior to that of other agents like anthrax and tularemia.

Botulinum appears to have been Saddam Hussein's favorite biological weapon. According to United Nations documents, Iraq produced 19,000 liters of liquid botulinum toxins and 8,500 liters of liquid anthrax. Much of this was loaded into bombs and Saddam was apparently fully prepared to use these weapons. Obtaining the bacterial cultures for production of botulinum toxins was unfortunately relatively easy for the Iraqis.

(William C. Patrick III, Biological Warfare Consultant)

The Iraqis got the culture that they used for weaponization from a supply house in the United States and they selected the same culture that we weaponized back in the 40s and early 50s. So we, by getting this culture from the supply house, we saved them a lot of time and energy and effort because they didn't have to go out and search for a very strong toxin producer.

(Dr. Joanne Cono, CDC)

Botulinum toxins aren't great open air biological warfare weapons because of their limited range and relative instability. But terrorists could potentially use the toxins effectively in enclosed areas or to contaminate food supplies.